WASHINGTON BREAKFAST CLUB

TRANSITIONING TO SUPPORT AN EXPEDITIONARY ARMY AT WAR

LTG Jeff Sorenson
Chief Information Officer/G-6

AMERICA'S ARMY: THE STRENGTH OF THE NATION
ARMY STRONG

Agenda

Persistent Conflict & Army Initiatives

Army Imperatives & Restoring Balance

CIO/G-6 Focus Areas

- Network Service Centers

- Cyber Operations/Warfare

- CIO/G-6 500-Day Plan

- Knowledge Management & Data Czar

- Program Objective Memorandum 2010-2015

Conclusions

Era of Persistent Conflict

Protracted confrontation . . . fueled by _six important trends_

7 Army Initiatives

1. Accelerate growth and readiness improvements

2. *Enhance the quality of support to Soldiers, Civilians, and Families*

3. Maintain the continuity and momentum of modernization

4. Complete Reserve Component transition to an Operational Force

5. *Accelerate change in leader development to grow leaders for tomorrow's strategic environment*

6. *Adapt institutional policies, programs, and procedures to support an expeditionary Army at war*

7. Build strategic communication capabilities to effectively communicate with internal and external audiences

4 Army Imperatives

2008 CURRENT

Current Demands

Readiness + Strategic Flexibility
___
Sustain Volunteer Force

Restoring Balance

2011 FUTURE

Current and Future Demands

Readiness + Strategic Flexibility
___
Sustain Volunteer Force

IMPERATIVES
- **Sustain**
- **Prepare**
- **Reset**
- **Transform**

- Demand Exceeding Supply
- Counterinsurgency-Focused Force
- Accelerated Equipment Wear-Out
- Soldier and Family Stress

- Steady-State Achieved via Army Force Generation Process
- Full Spectrum Readiness
- Reconditioning and Recapitalization of Equipment
- Better Facilities and Increased Dwell Time for Soldiers

CIO/G-6 Focus Areas

- **Network Service Centers**

- **Cyber Operations/Warfare**

- **CIO/G-6 500-Day Plan**

- **Knowledge Management & Data Czar**

- **Program Objective Memorandum 2010-2015**

A Soldier's Story

OPERATIONAL IT/DATA REQUIREMENTS:

NETWORK – constantly changing

E-MAIL ADDRESS – constantly changing/multiple

TELEPHONE NUMBER – constantly changing/multiple

COLLABORATION TOOLS – constantly changing

FILE STORAGE SYSTEM – constantly changing

Garrison

AKO-S

(NIPR/SIPR)

808-555-2020

Chat

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Honolulu

Garrison

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Training

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iridium

CPOF

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Hawaii, Hawaii
"The Big Island"

Kohala
Waikoloa

Mauna Kea

Honoka

Kailua Kona

Mauna Loa

Hilo

Keaau
Kurtistown

Pahoa

Honaunau

Volcano Village

Hawaii Volcanoes
National Park

Punaluu

Naalehu

Garrison

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Ft Lewis / McChord AFB

Power Projection

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Garrison

AKO
ARMY KNOWLEDGE ONLINE
U.S. ARMY

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Deployed

AKO-S

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Ideal End-State

Universal E-Mail Address

Universal File Storage

One Telephone Number

Standard Collaboration Tool Set

SOLDIERS • FAMILIES • ARMY CIVILIANS

ARMY STRONG.

- **Five locations to provide complete & overlapping coverage of Combatant Command Areas of Responsibility (AOR)**
  - All connected to the Global Information Grid (GIG)
  - Focus on Intertheater vs. Reachback via Teleports
  - Support Army/USMC Units & Comm-on-the-Move

Regional Hub Nodes (RHN) – 5 Planned Locations World Wide

Landstuhl/ Ramstein

North West

Lago Di Patria

Camp Roberts

Ft. Buckner

Wahiawa
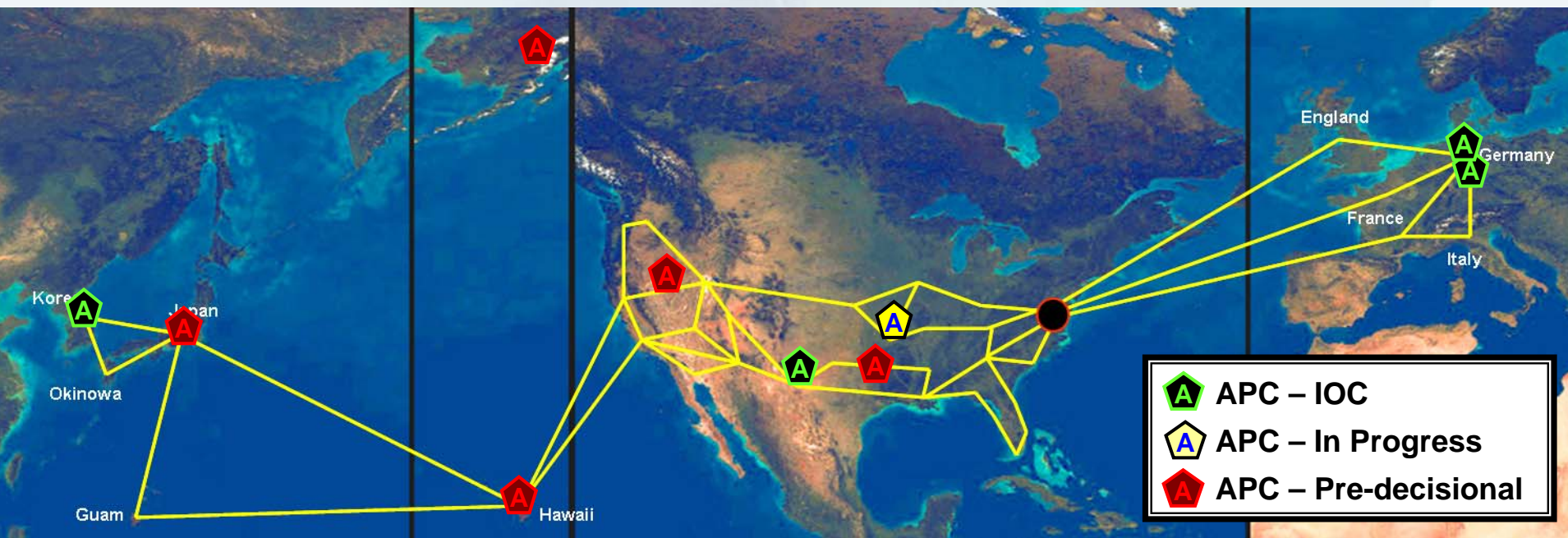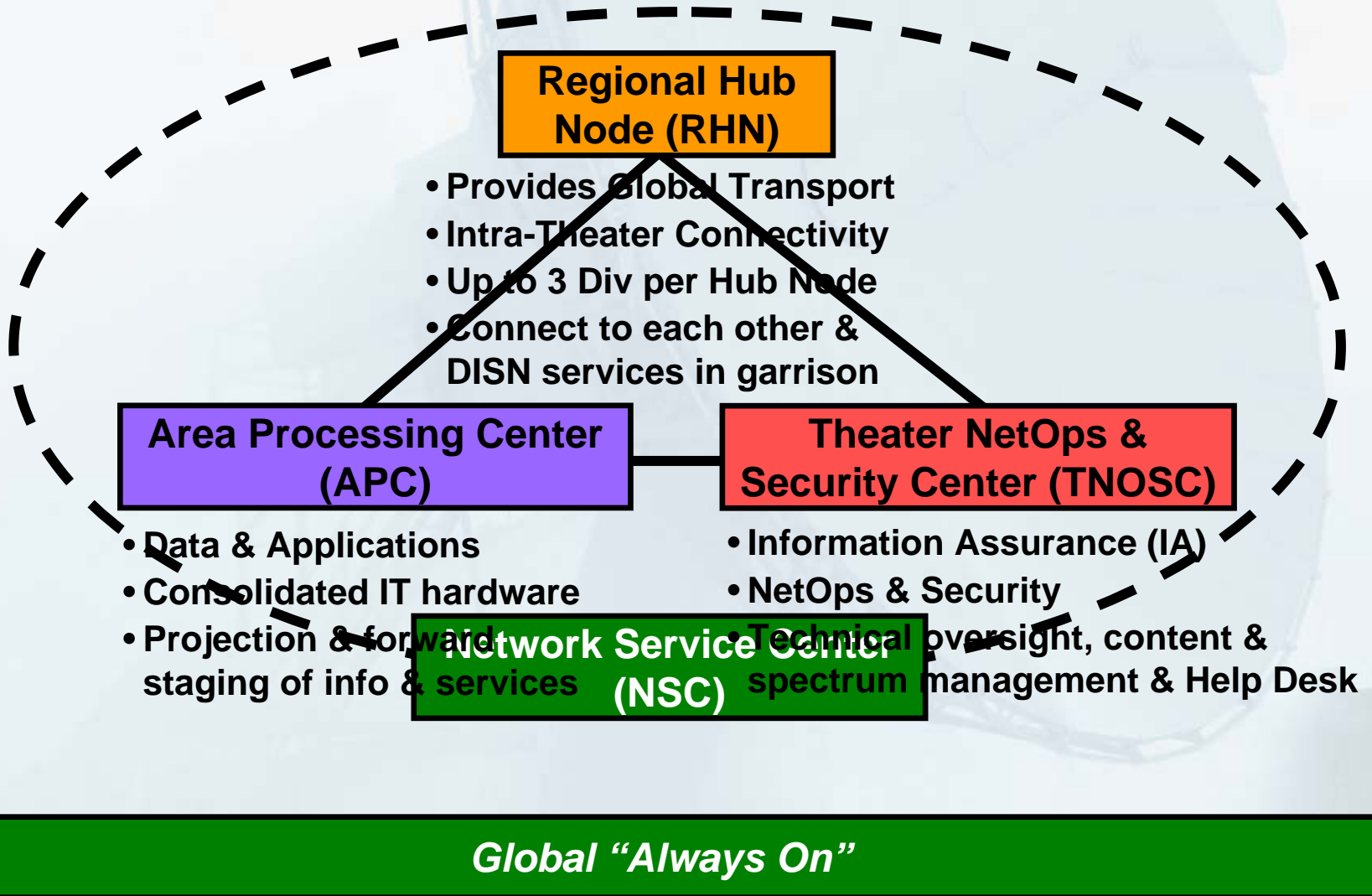
➢ **The purpose of the APC initiative is to improve delivery services through:**

- **Achieving Net-Centric Operations and Warfare Environment**
- **Improving IA and Security Posture**
- **Reducing Total Cost of Ownership (TCO) for Information Technology**

Legend:
- Ⓐ APC – IOC
- Ⓐ APC – In Progress
- Ⓐ APC – Pre-decisional

Regional Hub Node (RHN)

- Provides Global Transport
- Intra-Theater Connectivity
- Up to 3 Div per Hub Node
- Connect to each other & DISN services in garrison

Area Processing Center (APC)

- Data & Applications
- Consolidated IT hardware
- Projection & forward staging of info & services

Theater NetOps & Security Center (TNOSC)

- Information Assurance (IA)
- NetOps & Security
- Technical oversight, content & spectrum management & Help Desk

Network Service Center (NSC)

Global "Always On"

CIO/G-6 Focus Areas

- **Network Service Centers**

- **Cyber Operations/Warfare**

- **CIO/G-6 500-Day Plan**

- **Knowledge Management & Data Czar**

- **Program Objective Memorandum 2010-2015**

Timeline of warfare evolution

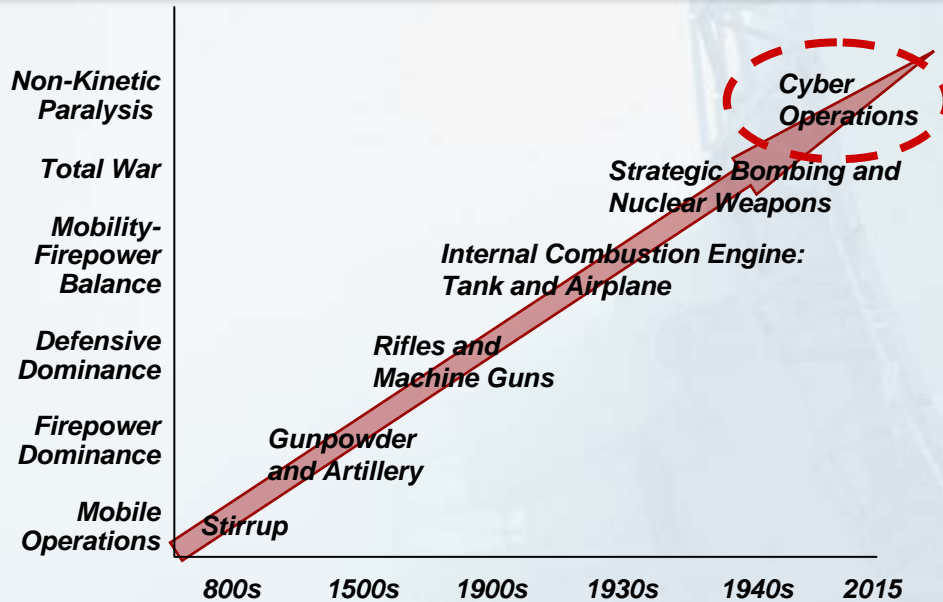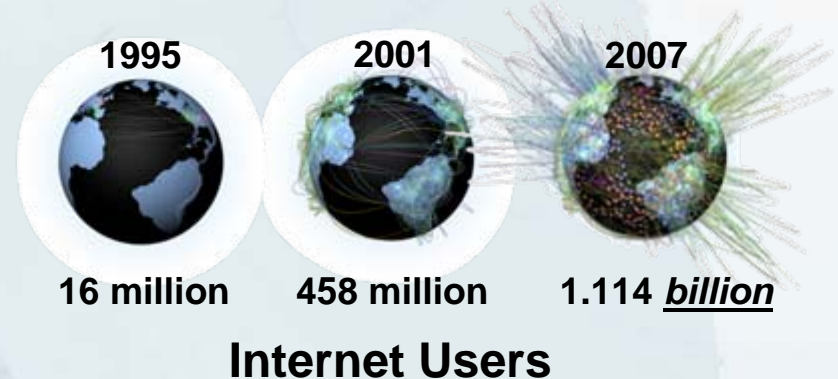| Era	Development
Non-Kinetic Paralysis	Cyber Operations
Total War	Strategic Bombing and Nuclear Weapons
Mobility-Firepower Balance	Internal Combustion Engine: Tank and Airplane
Defensive Dominance	Rifles and Machine Guns
Firepower Dominance	Gunpowder and Artillery
Mobile Operations	Stirrup

800s 1500s 1900s 1930s 1940s 2015

The importance of cyberspace as an arena of conflict will only grow as the world becomes more wired

1995	2001	2007
16 million	458 million	1.114 *billion*

Internet Users

Sophistication of Intruders vs. Sophistication of Attacks

Tools

Auto Coordinated
Cross-site scripting
"stealth" / advanced scanning techniques
denial of service
packet spoofing
sniffers
sweepers
Staged
distributed attack tools
www attacks
automated probes/scans
GUI
back doors
disabling audits
network mgmt. diagnostics
burglaries
hijacking sessions
exploiting known vulnerabilities
password cracking
self-replicating code
password guessing

Intruders

High / Low — Sophistication of Intruders

1980 1985 1990 1995 2000

Sophistication of Attacks

Source: CERT/CC

There is tremendous risk in not investing in CNO:

- **Ultimate WMD – Potential to create social, political, military, and economic havoc**
- **Highly asymmetric**
  - **Could be relatively cheap**
  - **Deliverable from strategic distance**
  - **Very stealthy**
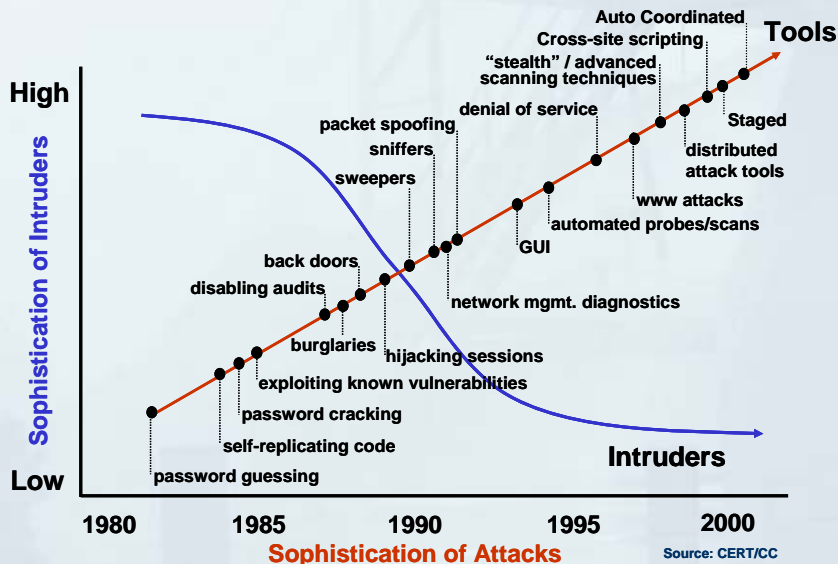
Cyber Operations Governance

General Kevin P. Chilton
CDR USSTRATCOM

Lt Gen Croom
CDR JTF-GNO
BG Napper
DEP CDR JTF-GNO

Headquarters (4)	Services (4)	NetOps Ctrs (7)	Combatant Commanders (10)	Agencies Field Activities Others (40)

Headquarters (4)
- OSD (x2)
- DOD IG
- Joint Staff

Services (4)
- Army
- Air Force
- Navy
- Marine Corps

Operational Control of Service Network Operations and Security Centers

NetOps Ctrs (7)
- DISA (x7)

Combatant Commanders (10)
- SOCOM
- CENTCOM
- EUCOM
- PACOM
- SOUTHCOM
- STRATCOM
- NORTHCOM
- JFCOM
- TRANSCOM
- AFRICOM

Army Cyber Operations Support

STRATCOM

JTF-GNO

CIO / G6

CIO/G6 OPS Cell

DCO

NETCOM

ARSTRAT

G3 ODI

G3

INSCOM

1st IO CMD

2d IO Bn

AGENCY NOSCs

AFNOSC

NAVNOSC

MCNOSC

A-GNOSC

ACERT (TACON)

Army NetOps Center

TNOSC SWA RCERT

TNOSC CONUS RCERT

TNOSC Europe RCERT

TNOSC Pacific RCERT

TNOSC South RCERT

TNOSC Korea RCERT

PEO / POR NOCs

Functional NOCs
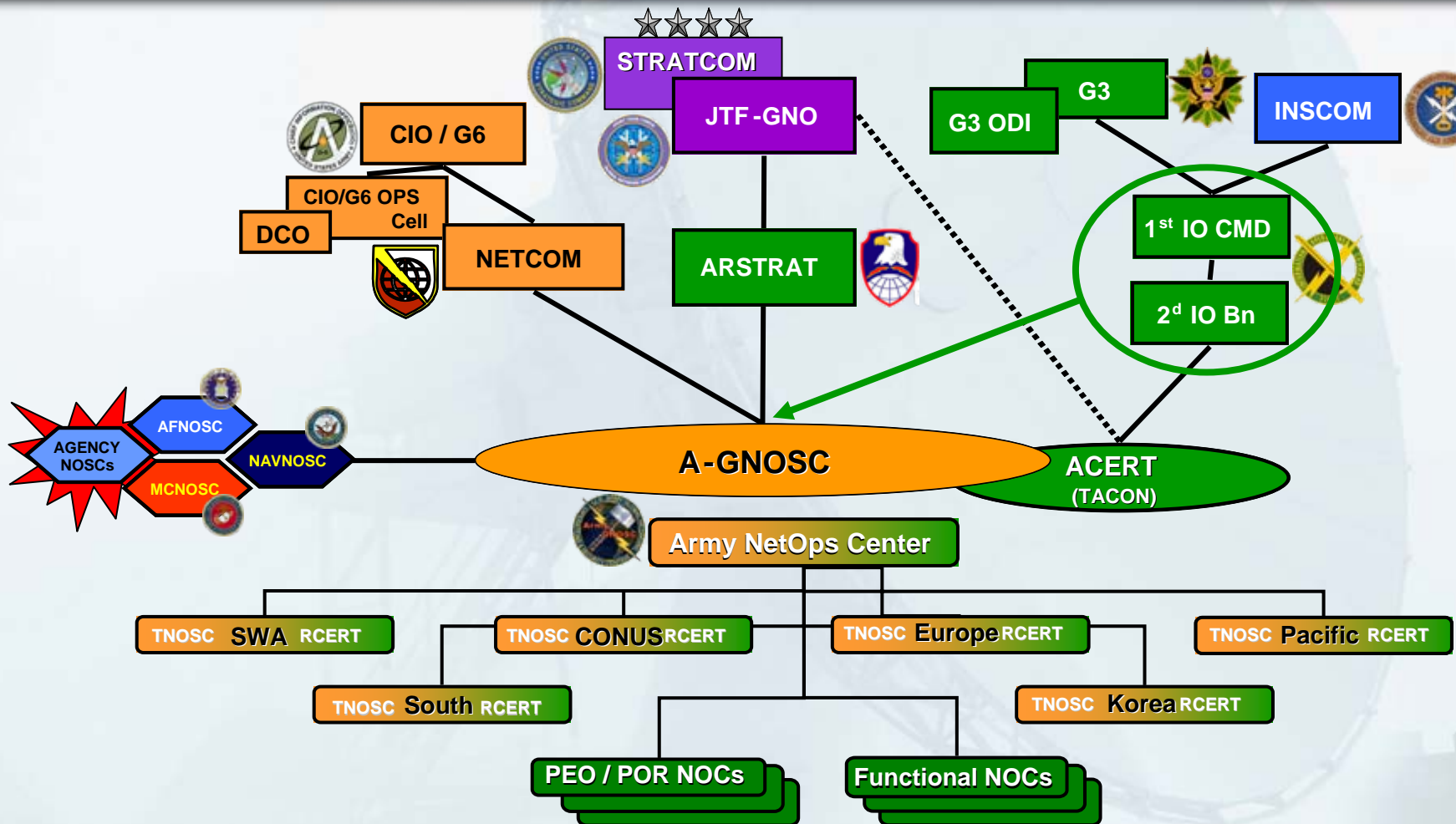
Cyberspace: "A global domain within the information environment consisting of the interdependent network of information technology infrastructures that includes the Internet, telecommunications networks, computer systems, and embedded processors and controllers in critical industries."

DepSecDef Memorandum – 21 Feb 08

- **Network Service Centers**

- **Cyber Operations/Warfare**

- **CIO/G-6 500-Day Plan**

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CIO/G-6 Campaign Plan is the long-term strategic plan

➢ *What will be done*

IM/IT POMs/ Budgets are the operational plans

➢ *Funding to get it done*

CIO/G-6 500-Day Plans are the tactical execution plans

➢ *How it will be done*

Rolling 100-Day Performance Reviews manage execution of the tactical plans
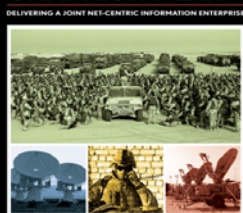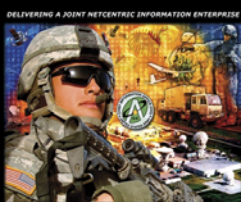
➢ *How are we doing in getting it done?*

Army CIO/G-6 Strategic Goals

1 **Develop and maintain** a secure, seamless, interdependent LandWarNet Network by leading development and enforcing the use of integrated enterprise architecture

2 **Lead enterprise integration** to achieve decision superiority by transforming **processes, applications and data** into net-centric capabilities across the Army

3 **Protect and defend** the Army's systems, networks, and information

4 **Ensure Army information management and information technology investments** maximize Joint and Army capabilities

5 **Develop the Army's information technology and information management knowledge and skills** to support mission needs

6 **Deliver an integrated enterprise strategy** that influences Joint and Army use of information management and information technology in furthering the warfighting capabilities

Army CIO/G-6 Strategy Map

VISION: Deliver a Joint, net-centric information enterprise enabling warfighter decision superiority

ENDS
- Develop LandWarNet Operational Capabilities
- Develop the LandWarNet Institutional Infrastructure

MISSION: Provide architecture, governance, portfolio management, strategy, C4IT acquisition oversight and operational capabilities to enable Joint expeditionary, net-centric information dominance for the Army.

WAYS
- Develop and maintain a secure, seamless, interdependent LandWarNet network by leading development and enforcing use of an integrated architecture.
- Lead enterprise integration to achieve decision superiority by transforming processes, applications, and data into net-centric capabilities across the Army.
- Protect and defend the Army's systems, networks, and information.
- Ensure Army information management and information technology investments maximize Army and Joint capabilities.
- Develop Army's information management and information technology knowledge and skills to support mission needs.
- Deliver an integrated enterprise strategy that influences Joint and Army use of information management and information technology in furthering warfighting capabilities.

MEANS
- Secure financial resources.
- Secure human resources.
- Secure relationships with science and industry to influence technology.

CIO/G-6 Focus Areas

- Network Service Centers

- Cyber Operations/Warfare

- CIO/G-6 500-Day Plan

- **Knowledge Management & Data Czar**

- Program Objective Memorandum 2010-2015

Multiple Reporting Systems and the Need for Change…

CISCO

EIS BO

OSR

ChATT

OMF

EIS WEB

DMR

Sales Executive

MBR

MyCustomer

eExec

BREES

No Single Source Of Truth

LACK OF VISIBILITY

Various Reporting Entries

Lack of Data Quality

No Derivative Views of Data

Security Risks

Commander

CPOF · UAVs · AKO · BFT · GCCS · LMP · GCSS · COP · DIMHRS · GFEBS

Lack of Visibility

No Single Source Of Truth

Various Reporting Entries

Lack of Data Quality

No Derivative Views of Data

Security Risks
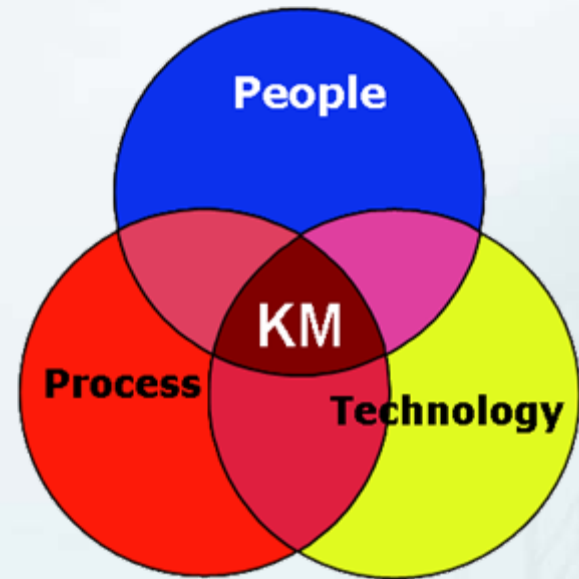
People:

- ✓ Foster culture that encourages and rewards sharing
- ✓ Identify & develop knowledge managers
- ✓ Motivate personnel to use tools & portals

Process:

- ✓ Link KM to organizational processes
- ✓ Leverage "best known" practices

Technology:

- ✓ Enables enterprise-wide knowledge transfer
- ✓ Knowledge portals (i.e. AKO/DKO/JKO, SharePoint, BCKS, Best of Breed, etc.)
- ✓ Secure the network

VISION:

Transform the Army to best exploit a Net-Enabled Environment which allows Warfighters and decision makers access to data in a timely and secure manner regardless of the environment

US Commander

Title 10

Title 40

Chief Data Officer

Reference Architecture

Knowledge Management

ADHIWG

CDO

ANCDS CoE

Secretariat

JCAs | COI | Mission Areas

Army Enterprise Data Position

DoD, Services, COCOM

Army Stakeholders

Key:
ANCDS CoE: Army Net-Centric Data Strategy Center of Excellence
ADHIWG: Army Data Harmonization and Integration Working Group
JCA: Joint Capability Areas
COI: Communities of Interest

CIO/G-6 Focus Areas

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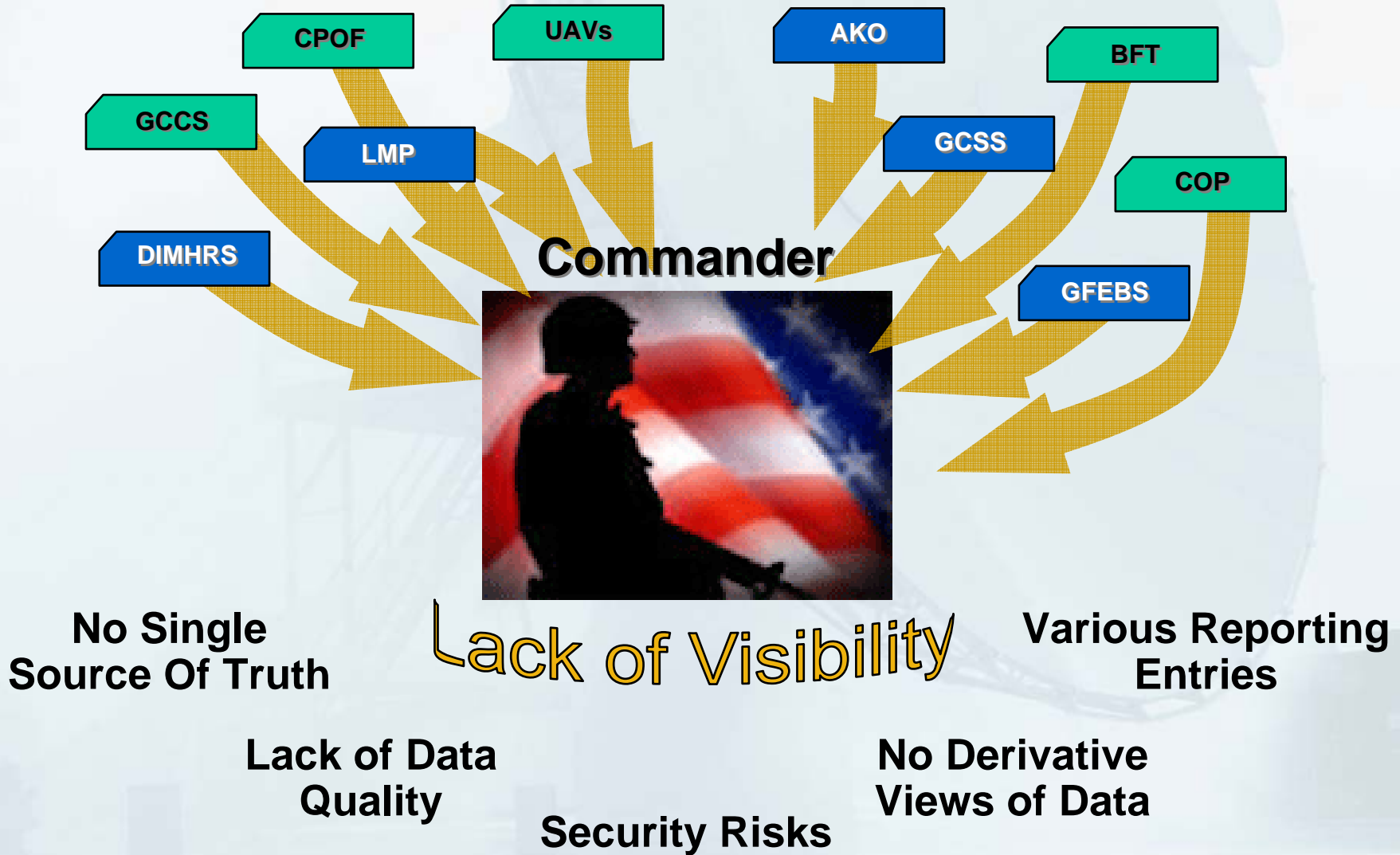
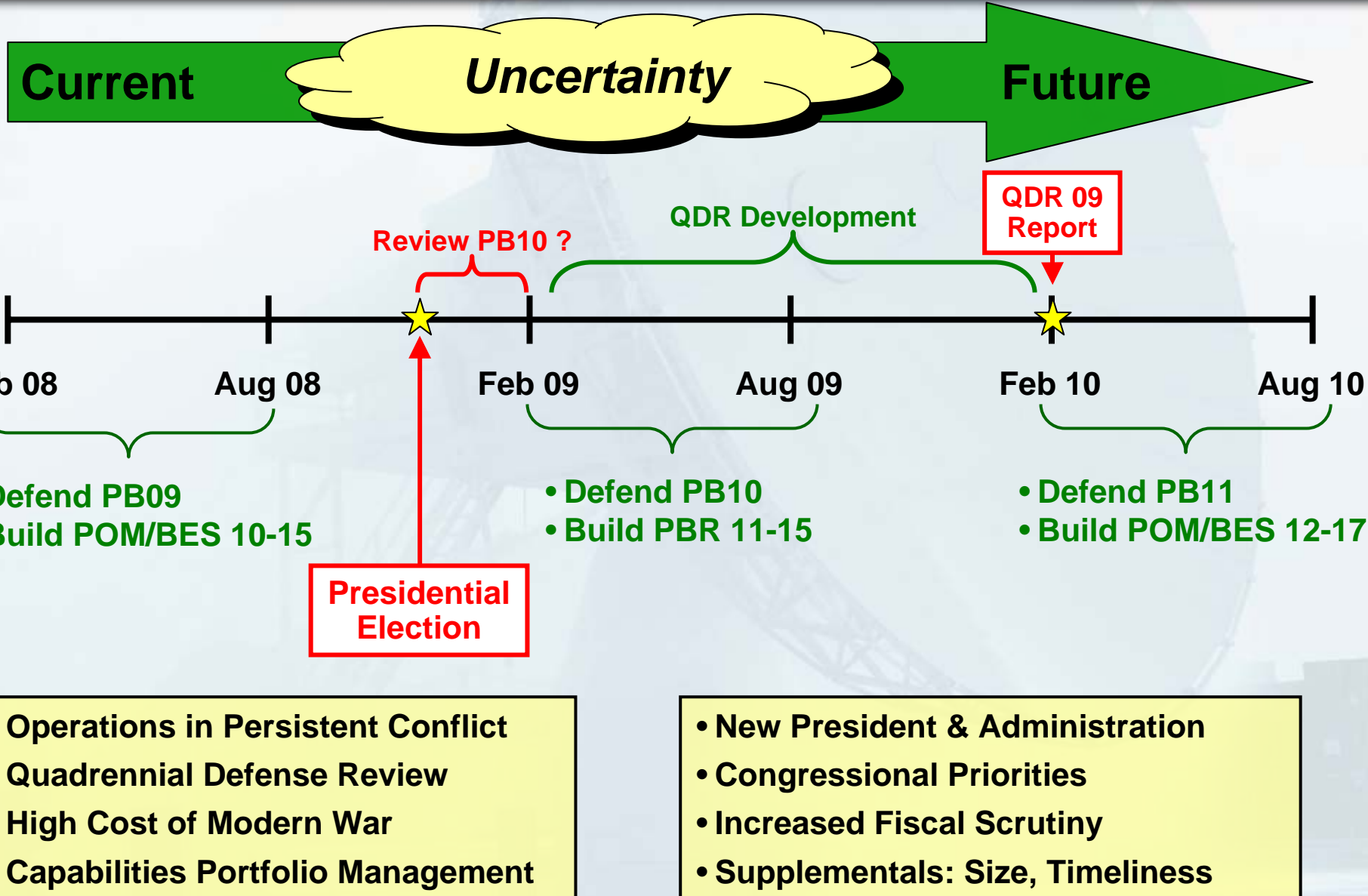- **Program Objective Memorandum 2010-2015**

Current → *Uncertainty* → **Future**

QDR Development

QDR 09 Report

Review PB10 ?

Feb 08	Aug 08	Feb 09	Aug 09	Feb 10	Aug 10

Presidential Election

- Defend PB09
- Build POM/BES 10-15

- Defend PB10
- Build PBR 11-15

- Defend PB11
- Build POM/BES 12-17

- **Operations in Persistent Conflict**
- **Quadrennial Defense Review**
- **High Cost of Modern War**
- **Capabilities Portfolio Management**

- **New President & Administration**
- **Congressional Priorities**
- **Increased Fiscal Scrutiny**
- **Supplementals: Size, Timeliness**

Intent of POM 10-15

- Restore balance by the end of 2011

- Develop a program to enable an expeditionary, campaign-capable Army across the Total Force

- Develop and retain sufficient strategic flexibility and operational depth in a environment of uncertainty

- Sustain an All-Volunteer Force

- Meet the demands of the National Security Strategy in an era of Persistent Conflict

- Examine the program requirements and garner the maximum capabilities and value possible

Equipping PEG: $6.0B
- MILSATCOM
- Warfighter Information Network- Tactical (WIN-T)
- Joint Tactical Radio System (JTRS)
- Force 21 Battle Command Brigade & Below (FBCB2)
- Army Battlefield Command System (ABCS)

Total Army Funding

$139B

Organizing PEG: $449M
- Army Knowledge Online (AKO)
- Network Information Services Agency- Pentagon (NISA-P)

Sustaining PEG: $217M
- Global Combat Service Support- Army (GCSS-A)
- Deployment Automation

C4/IT Funding
- $9.97B
- 7.2% of Army TOA

Training PEG: $640M
- Distance Learning
- NETCOM

Manning PEG: $375M
- Army Recruiter Information System (ARIS)
- HRC Automation
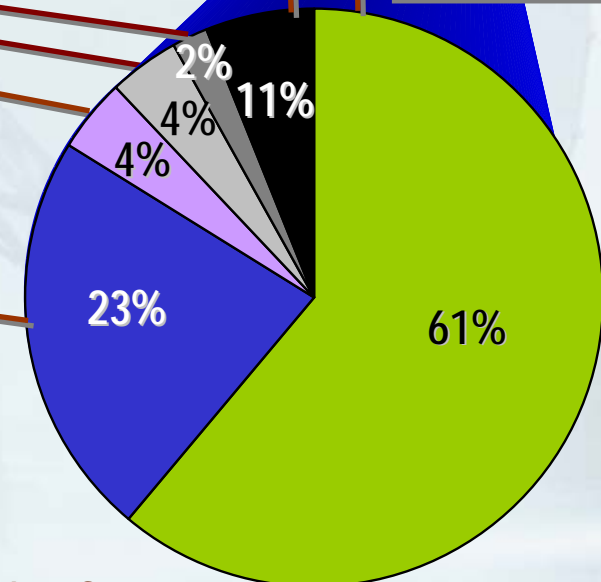- MEPCOM Automation

Installation PEG: $2.25B
- Installation Information Infrastructure Modernization Plan (I3MP)
- Reserve Component Automation System (RCAS)
- Long Haul (NIPR, SIPR & DSN)
- Base Support
- Information Assurance (IA)

2%
11%
4%
4%
23%
61%

Army Top 10 "Programs" & IT $$

MDEP DESCRIPTION	FY09
FUTURE COMBAT SYSTEM (FCS)	$2.0 Billion
TACTICAL NETWORK COMMUNICATIONS	$790 Million
BASE INFORMATION MANAGEMENT OPERATIONS	$392 Million
BASE COMMUNICATIONS	$392 Million
9TH ARMY SIGNAL COMMAND	$365 Million
FORCE XXI BATTLE COMMAND BRIGADE & BELOW (FBCB2)	$298 Million
ARMY BATTLE COMMAND SYSTEM (ABCS) INTEGRATION	$289 Million
LONG HAUL COMMUNICATIONS	$255 Million
INSTALLATION INFO INFRASTRUCTURE MOD PROGRAM (I3MP)	$250 Million
MILITARY SATELLITE COMMUNICATIONS (MILSATCOM)	$243 Million

The Army runs the world's largest portal (AKO/DKO), and is the single largest customer of Microsoft, Dell, MPC, and Linux, and in the HP top-5

America's Army: The Strength of the Nation – Army Strong

Conclusions!!!

Posturing for Persistent Conflict

…driving an Expeditionary Army

CIO/G-6 Focus Areas

…NSC, Cyber Ops, 500-Day Plan, KM & Data Czar

Army Way Ahead

…working key programs & initiatives in POM

Shared Situational Awareness

…Bottom Line to Joint Warfighter

QUESTIONS + THOUGHTS

LTG Jeff Sorenson
Chief Information Officer/G-6

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ARMY STRONG